



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

14028

REGION 5

230 SOUTH DEARBORN ST.

CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Telephone Record

Time of call: April 9, 1990

Re: Lead "Reduction" in Soil from Use
of Lime or PhosphateFrom: J. Milton Clark *mu*To: William Buck
University of Illinois
Head, Animal Poison Information Center

I called Professor Bill Buck, a veterinarian, at the University of Illinois in Champaign to discuss his press statements on the use of lime/phosphate to "reduce" lead in soils. Dr. Buck said that several lab studies had shown a reduction in lead soil (it was less extractable) after soil had been treated with lime/phosphate. He admitted the technique had never been used in a residential location and only in a few agricultural cases but believed it should be tested at the location. He could not tell me the degree of lead "reduction" nor the lead compound which was formed. (Probably the compound formed is lead phosphate, which is insoluble in water but dissolves in strong acid). Dr. Buck said an agricultural study showed a "reduction" of lead in soil from something less than 1,000 ppm to about 500 ppm and a reduction in observed toxicity to grazing cattle. Dr. Buck's conclusion was that after treatment the lead was less bioavailable to the cattle.

I asked him if lead bioavailability animal studies had been conducted where the treated and untreated soils were fed to animals, to accurately document the differences in lead exposure. He said, to his knowledge, they haven't been, and further added that he didn't see the need to conduct an animal study. He believed test areas in Granite City could be treated (discing in lime and phosphate) and then tests would be conducted on (1) soils (2) animals (dogs/cats) and (3) people to see if the method worked.

I told him that we would be uncomfortable with the application of an experimental procedure, which does not really reduce the lead in soil and which may only reduce its bioavailability to an uncertain amount. He said the site had been there several years, so what is the rush.

I related that our analysis indicated blood lead levels for some children would be above the critical 10-15 ug/dl range and that waiting longer didn't make sense. I added that blood lead levels change both seasonally and with the degree vegetative cover and, therefore, they offer only a short term picture of human exposure. Dr. Buck responded that we didn't know what we are doing and that we should seek more advice from the Illinois Department of Health. I informed Dr. Buck we plan to hold a meeting to discuss our decision. (Our letter to Dr. Turnock Head of IDPH). I also asked him to send me literature on the lead treatment technique.

Response/Action

I am personally not comfortable with conducting experiments which will fail to reduce or eliminate the lead from residential areas and then use animals or human blood tests to see if the solution has worked. Extensive data would be needed, and there would still be uncertainty. Even if the process worked, it would require the tillage of all yards and resodding, an extensive undertaking and not unlike soil removal and resodding. A computer search did not reveal literature on this topic, nor is it cited as a technique in the EPA/CDC pilot lead remediation studies, which have been collecting field data on alternative remediation procedures.

cc: B. Bradley
K. Westlake
M. Canavan

ous Power Co. plans to dismiss its 260 customer service employees in early 1991 and to transfer 90 of those remaining to a new customer service office to be located in Decatur next year, a company spokesman said Friday.

The company's 78 metro-east area service employees, about half of whom are in the 130 that either stay or transfer to Decatur, Scott Peterson, a spokesman for the company, said.

The company decided to centralize its customer service system, a move consistent with current industry trends, in order to increase efficiency, said Peterson.

"We've had a problem with people having trouble getting calls into our offices, especially during an outage," Peterson said.

There from 2 to 12 meter service representatives per office to handle calls in 36 offices wide, including Belleville, East St. Louis, Collinsville, Columbia,

The company intends to continue staffing those local offices with about 125 customer service representatives. But once the new Decatur site opens, customers will be encouraged to report emergencies and questions to that office, using a toll-free number.

About 90 customer service representatives will man the phones at the new station, which will be located in the company building in downtown Decatur.

"Sometimes the lines to the local offices get crowded, especially during an outage," Peterson said. "With the new station, their calls are sure to be answered faster."

Equipping the new office with telephones and computers will cost about \$2.5 million, Peterson said. The company expects to save \$1 million annually on phone-line costs: maintaining multiple lines to 36 different offices is more costly than maintaining lines to a central site, Peterson said.



News-Democrat/Chris Soderberg

Time to spring forward

Belleville Parks and Recreation Department worker Ron Beckmann changes the time on a clock at East Main and North Church streets. City workers Friday were getting a jump on the rest of us, who should move our clocks ahead

one hour tonight as most of the United States officially returns to daylight-saving time at 2 a.m. Sunday. Daylight-saving time will remain in effect until Oct. 28, when that lost hour of sleep will be returned.

PA decides to use controversial plan for lead cleanup

By DAVID GOSNELL

News-Democrat

GRANITE CITY — The U.S. Environmental Protection Agency on Friday decided to use a controversial plan to dig up yards in a 55-block area of the city to remove lead-contaminated

soils. Efforts by Granite City Mayor Von Dee Cruse and others to stop the EPA plan in favor of waiting for a thorough health study apparently have been unsuccessful. But the EPA has agreed to conduct blood-level surveys of children in the area — a study that has been pushed by Illinois Department of Public Health before a decision is made on a cleanup plan.

The results of the study, however, will not affect the scope of the cleanup, said an EPA spokesman.

Project manager of Superfund hazardous waste site, Brad Bradley, said late Friday evening that the decision had been made, and documents were to be signed Friday night. The EPA deadline on a decision for the \$23 million project was Friday.

In a last-ditch effort, Cruse said he tried to enlist the help of Rep. Jerry Costello, D-Ill., to call upon the EPA to postpone the decision.

"We are not trying to stop anything. We just want it done right," Cruse said. "I've asked him to call the U.S. EPA's regional office in Chicago."

Costello's spokesman, Brian Lott, said Costello decided not to request a delay. "They said today (Friday) they were on the verge of announcing their record of decision. They were just too far along."

At issue is the residential area in south Granite City that surrounds a now-defunct lead smelting and recycling operation that is blamed for the contamination of soil, mainly because of decades of lead emissions from the lead works.

Cruse and health department officials have claimed that the EPA's cleanup plan should not be finalized until more is known about actual health hazards in the area. The plan includes removing 4 inches of exposed dirt from a 55-block area and dumping it on an existing lead waste pile, which would then be entombed in

concrete.

Cruse said the EPA's cleanup plan will have "disastrous" economic effects on the community. He also said the agency has failed to consider alternative cleanup proposals that would have been just as effective, less expensive and less disruptive.

The EPA threshold is 500 parts-per-million of lead in the soil, with soil above that level requiring cleanup. Public health officials and one of the responsible lead industries, NL Industries, dispute whether there is a scientific basis for declaring levels above that as hazardous.

Cruse met with several University of Illinois toxicologists on Monday who have offered an alternative cleanup plan that would spread lime and phosphate fertilizer in the soil.

The plan, which would not include the removal of contaminated soil, would neutralize the lead in the soil and prevent it from contaminating children and would radically lower the parts of lead per million in the soil.

said William Buck, a University of Illinois professor of toxicology and director of the university's toxic center for animals.

"It's pretty well documented," Buck said of the process. "It ties the lead up to where it's not available to humans chemically. It's the most sensible way to handle the problem," he said.

But Bradley said that, while the lime method is promising, it is new and questions still remain on whether the neutralizing lasts over time. Experimenting with it in a residential area is not acceptable, he said.

"It can be applied in some cases, but they haven't really proven it in the field," Bradley said. "Leaving something like that in place is not solving the problem. To use it in a residential area is a big gamble."

Tom Long, an environmental toxicologist from the health department, has submitted a in-house proposal for a \$340,000 lead study to the department. Buck said he was asked by Long to become involved in the Granite City lead site.

The News-Democrat . page 1 . Sat. 3/31/90